

REMARKS

Claims 1-5, 21, 22 and 28-35 are pending. Reconsideration and allowance based on the below, are respectfully requested.

Claim 21:

The Office Action rejects claim 21, 22 and 34 under 35 U.S.C. § 102(b) as being anticipated by Florentin (US Patent 5,835,147). This rejection is respectfully traversed.

Independent claim 21 recites, *inter alia*, temporally converting a picture data format based on coding difficulty information using at least temporal conversion to reduce temporally-redundant information.

Applicants respectfully submit that the above claimed feature is not taught in Florentin. Florentin teaches, a method of transmitting a sequence of images. Prior to transmitting, a pre-processor prepares the signal by converting the signal from analog to digital, running the signal through a low pass filter and performing horizontal and vertical decimation. The horizontal and vertical decimation is a spatial conversion in which the number of pixels in each frame is reduced.

The Examiner alleges that the above pre-processing, as described at column 4, lines 17-31, teaches the claimed temporal conversion. Applicants respectfully submit that nowhere does this section of Florentin or any other section of the disclosure teach or suggest temporal conversion, as claimed by Applicants. To the contrary, the section of Florentin refers to a spatial conversion based on vertical and horizontal decimation of individual pixels. It appears to the Applicants that there is a misunderstanding between spatial and temporal conversion. It is well known in the art that spatial decimation refers to pixels on either vertical or horizontal direction being reduced to reduce picture size. See definition of “decimation” in the Standard for DVD and Video Data Processing.

Therefore, in view of the above, Applicants respectfully submit that Florentin does not teach the recited claim feature of independent claim 21 including temporal conversion. Thus, Florentin fails to teach each and every feature of independent claim 21 as required. Dependent claims 22 and 34 are likewise distinguishable for the above reasons as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1 and 32:

The Examiner rejects claims 1-5, 28-33 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi, et al. (US Patent 6,466,625) in view of Florentin. This rejection is respectfully traversed.

Applicants' remarks in previous responses with respect to Kobayashi are hereby incorporated by reference.

Claim 1 recites, *inter alia*, a picture conversion unit for temporally converting a picture format of the source picture data to reduce temporally-redundant information; a conversion controller for controlling the picture conversion unit based on the coding difficulty information to convert the picture format using at least temporal conversion.

Claim 32 recites, *inter alia*, temporally converting a picture format of the source picture data to reduce temporally-redundant information; controlling the converting of the picture format based on the coding difficulty information using at least temporal conversion.

In embodiments of the present invention as recited in independent claims 1 and 32, temporal conversion is performed when converting a picture format of the source picture data and based on the coding difficulty.

The Examiner alleges that Kobayashi teaches a system that performs temporal conversion as claimed by Applicants. Applicants respectfully disagree.

The Examiner refers to column 14, lines 52-62 as disclosing the use of temporal conversion. Applicants respectfully submit that this section of Kobayashi references problems that can arise in temporal and spatial domains with low pass filtering based on small blocks in the manner used in embodiments 1 and 2 of Kobayashi. A closer examination of the text reveals that temporal conversion is not being taught.

Lines 57-62 of Kobayashi refers to embodiments 1 and 2 in which small blocks are used in the pre-processing of moving picture signals. The use of the small blocks allows improving coding efficiency. However, the use of small blocks has apparent problems which may occur which is discussed at lines 57-67. As stated in Kobayashi, "if filtering characteristics for low-pass filtering are adaptively determined for these pictures depending on the small-block-based encoding difficulty, there may be produced small blocks having temporally/spatially different low-pass bands, thus possibly deteriorating the subjective picture quality." This section of Kobayashi does not teach or suggest that temporal conversion takes place but instead it teaches that small blocks having different spatial and temporal low-pass bands may be produced from embodiments 1 and 2 of Kobayashi's invention.

Further, Florentin fails to remedy Kobayashi's deficiencies. As discussed above with regard to claim 21, Florentin teaches spatial decimation which is not temporal decimation or temporal conversion. The reduction of pixels in each frame in a vertical or horizontal direction as described at column 4, lines 24-29, is spatial decimation. The teachings in Florentin do not refer to temporal domain as suggested by the Examiner.

Therefore, the combination of Kobayashi and Florentin fail to teach each and every feature of independent claims 1 and 32, as required. Also, dependent claims 2-5, 28-31, 33 and 35 are also distinguishable for the above reasons as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

CONCLUSION

For at least these reasons, it is respectfully submitted that claims 1-5, 21, 22 and 28-35 are distinguishable over the cited art. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

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